



Pregnant male *Hippocampus guttulatus* © Edwin van den Sande / Guylian Seahorses of the World

Key Facts

- The Syngnathidae (or 'Syngnathids') are a family of fishes which includes seahorses, pipefishes, pipehorses, and the leafy, ruby, and weedy seadragons. The name is derived from the Greek word 'syn', meaning "fused" or "together", and 'gnathus', meaning "with jaw".
- The Syngnathidae are in the Order Syngnathiformes, which has one other representative in the Mediterranean: the longspine snipefish, *Macroramphosus scolopax* (Linnaeus, 1758) (Family: Centriscidae), which is listed as Least Concern at the Mediterranean Sea level.
- Syngnathids are unique fishes in that they exhibit male pregnancy and give birth to live young. They may be at heightened extinction risk because they produce relatively few offspring and exhibit high site fidelity.
- 13 species are found in the Mediterranean Sea and all have been assessed for the IUCN Red List of Threatened Species at the Mediterranean level. None of species are endemic to the Mediterranean.
- Both seahorses found in the Mediterranean (*Hippocampus hippocampus* and *Hippocampus guttulatus*) are Near Threatened because their populations are declining as a result of habitat degradation caused by coastal development and destructive fishing gears such as trawls and dredges. Seahorses and pipefishes are taken as bycatch in trawl fisheries and sometimes retained and targeted for sale to aquaria, use in traditional medicines, and as curious and religious amulets.
- However more than half of the seahorses and pipefishes found in the Mediterranean Sea (seven species) are currently considered Data Deficient because there is insufficient information available to assess their extinction risk and further research is needed to understand their distribution, population trends and threats.

Main Threats

Seahorses and pipefishes in the Mediterranean are threatened by habitat loss and degradation that is caused by commercial, residential, and tourism coastal development, and by unintentional damage by destructive fishing gears such as trawls and dredges. Although syngnathids are not targeted by fisheries in the region, seahorses and pipefishes do get taken incidentally as bycatch and they are often subsequently sold live to aquaria, or dried and traded globally for use in traditional medicines, a lucrative market that involves millions of seahorses and complex international trade routes. Levels of offtake from wild populations are not known, and therefore the effect of catch on extinction risk cannot currently be evaluated.

Coastal areas that are home to syngnathids are also at risk from threats such as pollution, sedimentation, eutrophication, and habitat disturbance through boating and shipping.



Syngnathus typhle © Robert Patzner

Conservation Status Assessment

Species in the family Syngnathidae were assessed for the IUCN Red List of Threatened Species at the Mediterranean regional level. Of the 13 species native to the Mediterranean Sea, two are Near Threatened, four are Least Concern, and seven are considered Data Deficient because there is not enough information about the species to assess their extinction risk in the region. More details about each single species assessment can be consulted at:

www.iucnredlist.org/mediterranean

Conservation Actions

Both seahorses *Hippocampus hippocampus* and *Hippocampus guttulatus* in the Mediterranean are protected through CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) regulations. This means that countries involved in their trade are required to report exports and permits are required for any export or import of these species. They are also included in Annex II of the *Specially Protected Areas and Biological Diversity* (SPA/BD) Protocol of the Barcelona Convention. This means that Contracting Parties “shall regulate and, where appropriate, prohibit activities having adverse effects on such species or their habitats, and carry out management, planning and other measures to ensure a favourable state of conservation of such species” in the Mediterranean Sea.

Some Mediterranean countries legally protect these species. For example, in Slovenia all syngnathids are protected from exploitation and disturbance, and in France imports were banned.

Unfortunately trade regulations do little to ameliorate the threat of bycatch and habitat damage and loss as unintentional impacts due to trawling and dredging. Enforcement and expansion of restrictions on such activities are needed. Further research on post-release survival is needed to determine if returning bycatch to the sea would be beneficial. Existing sites with known syngnathid populations (particularly for the Near Threatened seahorses) or suitable habitat would benefit from designation as Marine Protected Areas (MPAs) or Fisheries Restricted Areas to protect them.

Further research and monitoring are needed in order to determine population sizes, trends in abundance, and changes in habitat for Mediterranean syngnathids. For the seven species currently assessed as Data Deficient, more information is urgently needed in order to understand whether they are threatened and therefore require conservation action. Anyone can contribute to the underwater monitoring of seahorses through [iSeahorse](#), and observations of any syngnathid can be submitted to [iNaturalist](#). Such dedicated surveys can help to move species away from Data Deficiency, and will assist monitoring the impact of conservation efforts that aim to move species away from threatened categories towards the more desirable category of Least Concern.

Summary of the conservation status of the Mediterranean Seahorses and Pipefishes assessed at the regional level

SCIENTIFIC NAMES	AUTHORITY	MEDITERRANEAN RED LIST CATEGORY	ENGLISH	ESPAÑOL	FRANÇAIS
<i>Hippocampus guttulatus</i>	Cuvier, 1829	Near Threatened (NT)	Long-snouted Seahorse	Caballito de Mar	Hippocampe Moucheté, Hippocampe à Long Bec
<i>Hippocampus hippocampus</i>	(Linnaeus, 1758)	Near Threatened (NT)	Short-snouted Seahorse	Caballito de Mar	Hippocampe à nez court
<i>Nerophis ophidion</i>	(Linnaeus, 1758)	Least Concern (LC)	Straightnose Pipefish	Alfiler, Pejepipa, Serpetà	Nérophis Ophidion
<i>Syngnathus abaster</i>	Risso, 1827	Least Concern (LC)	Black-striped Pipefish	Aguja de Río	Syngnathe
<i>Syngnathus acus</i>	Linnaeus, 1758	Least Concern (LC)	Greater Pipefish	Aguja de Mar	Aiguille de Mer
<i>Syngnathus typhle</i>	Linnaeus, 1758	Least Concern (LC)	Broadnosed Pipefish	Aguja Mula, Peix Bada, Pejeaguja	Siphonostome, Vipère de Mer
<i>Minyichthys sentus</i>	Dawson, 1982	Data Deficient (DD)			Syngnathe Nain
<i>Nerophis maculatus</i>	Rafinesque, 1810	Data Deficient (DD)	Spotted Pipefish	Pez Pipa	Nérophis Tacheté
<i>Syngnathus phlegon</i>	Risso, 1827	Data Deficient (DD)	Pelagic Spiny Pipefish	Aguja Espinosa	Syngnathe Épineux
<i>Syngnathus rostellatus</i>	Nilsson, 1855	Data Deficient (DD)	Nilsson's Pipefish	Palito	Petite Aiguille de Mer
<i>Syngnathus schmidtii</i>	Popov, 1928	Data Deficient (DD)	Schmidt's Pipefish, Black Sea Pelagic Pipefish		Syngnathe de Schmidt
<i>Syngnathus taenionotus</i>	Canestrini, 1871	Data Deficient (DD)	Darkflank Pipefish		Syngnathe de l'Adriatique
<i>Syngnathus tenuirostris</i>	Rathke, 1837	Data Deficient (DD)	Narrow-snouted Pipefish	Mula, Palito	Syngnathe à Long Museau

The IUCN Red List of Threatened Species™ - Mediterranean Assessment